

Abstract of the Disclosure

In order to maximize the production of propylene when the external supply of ethylene is limited, the C₄ cut from a hydrocarbon cracking process is first subjected to autometathesis prior to any
5 isobutylene removal and without any ethylene addition. This favors the reactions which produce propylene and pentenes. The ethylene and propylene produced are then removed leaving a stream of the C₄'s and heavier components. The C₅ and heavier components are then removed leaving a mixture of 1-butene, 2-butene, isobutylene, and iso- and
10 normal butanes. The isobutylene is next removed preferably by a catalytic distillation hydroisomerization de-isobutyleneizer. The isobutylene-free C₄ stream is then mixed with the product ethylene removed from the autometathesis product together with any fresh external ethylene needed and subjected to conventional metathesis
15 producing additional propylene.

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